



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBST2120-11
Job Sheet 171618



Part No: RBST2120-11

Job Qty: 4 ea

Part Name: Primary Seat



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/6/18

Job Tracking No:

Due Date: 2/16/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: RBST2100 REV.7 IPP REV:A 18.01.31 NEW ISSUE JFC VERF:DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea		2/15/18	0.00	0.00	Start Up Machining-4		18-3-25
110	CNC Lathe	4 pcs		2/16/18	0.00	1.00	MORI SL-154		18
120	QC	4 pcs		2/16/18	0.00	0.00	QC2		18
130	QC	4 pcs		2/16/18	0.00	0.00	QC8		18/03/26
150	Outsource	4 pcs		2/16/18	0.00	0.00	Outsource12		CT18-4-2 AT18/04/10
160	Packaging	4 pcs		2/16/18	0.00	0.00	Packaging2		AT18/05/10
170	QC	4 pcs		2/16/18	0.00	0.00	QC6		38
180	Packaging	4 pcs		2/16/18	0.00	0.00	Packaging3	GA	APR 11 2018
210	QC21-SA	4 Ea		2/16/18	0.00	0.00			GA13705

Part Op 110 - 1-Machine as per FOLIO FB797. FOLIO REV: _____ DWG REV: _____ 2-Deburr 3-Engrave P/N

Descriptions: And / or T/N number as required Using Marktronic engraver as per DWG.

150 - -Issue P/O to Groupe Altech; PO 039486 -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R1.375	MT-4140 QT-R1.375	.4000 ft (.1 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140QT-R1.375	0	20	0
	5042208	38		

Part Specifications



Dart Aerospace Ltd.
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Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

could not be found.

Plex 2/6/18 9:51 AM Dart.lajeunesse.marie

Container No: S054646



Part: RBST2120-11

Job No: 171618

Serial No/Batch: S054646

Revision: 7

Inspector:

Date: 03/25/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

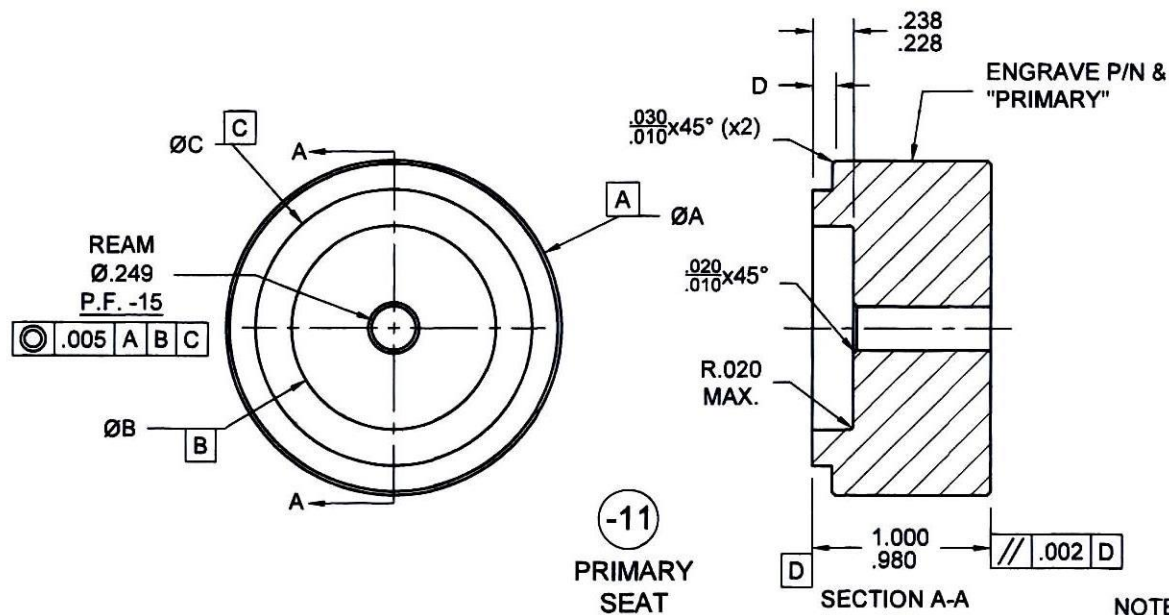
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	ADDED NOTE TO -1 BODY TO INSPECT BEFORE HEAT TREATING, ALSO CHANGED TOL., OF -1 ROLLER FIXTURE'S ØB, ØC, & ØE FROM +.002 -.000.	2/11/08	WP	DW
2	-15 CHD LOCATING PIN TOLERANCE FROM Ø.2480 Ø.2475 TO Ø.250 P.F. -11 & -13. -11 & -13 CHD FROM Ø.247 Ø.248 TO REAM Ø.250. REMOVED MS14102 & MS14104 CHAMFERED BEARINGS FROM LIST.	2/19/08	WP	GE
3	ADDED KST2128 & KST2162. -13 REMOVED 25° ANGLE FROM SECONDARY SEAT AND DELETED ØB DIMENSION. ADDED QTY TO -13 & -15 CHART.	4/22/08	WP	DW
4	-5 CHD ROLLER RADIUS FROM .005 - .010, TO .015 - .020, -9 PIN RADIUS FROM .015 MAX., TO .015 MIN. CHD -7 SLEEVE TO -7 GUIDE.	7/7/08	WP	DW
4A	CHD T/N FROM KST2100.	11/19/09	RJC	
5	CORRECTED ERROR -3 WAS .165 NOW .172 FOR ROLLER CLEARANCE. ADDED REVISIONS TO ALL PAGES.	1/18/10	WP	DW



NOTES:

1. BREAK ALL SHARP CORNERS (.015/.03).

TOOL #	ØA +.000 -.030	ØB +.000 -.005	ØC +.002 -.002	D +.002 -.002	MATERIAL
RBST2120	1.360	.875	0	0	4140 Q&T RND. BAR Ø1-3/8 x 1-1/8
RBST2128	1.870	1.139	0	0	4140 Q&T RND. BAR Ø1-7/8 x 1-1/8
RBST2162	1.485	.881	1.183	.053	4140 Q&T RND. BAR Ø1-1/2 x 1-1/8

RED BARN MACHINE	
TITLE RBST2100 SERIES TRI-ROLLER SWAGING TOOL; PRIMARY SEAT	
DWG NO. TOOL# (see chart)-11	REV 7
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS XXX ± .005 FRACTIONS ± 1/32 XX ± .01 ANGLES ± .5° X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 1-23-08
SHEET 7 of 9	
DRAWN BY: PERRITT APPROVED: <i>D Wed</i> HEAT TREAT: BLACK OXIDE FINISH SPEC: USED ON BEARING SEE Pg. 1	



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039486**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO039486
PO Date: 4/2/18
Due Date: 4/12/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Tsimiklis, Chrisoula
Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	172195	RBSC7048-P-3	Seat -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	4/12/18	5 pcs	0 pcs 5x	5 pcs	\$7.05882353/pcs	\$35.29
2	171618	RBST2120-11	Primary Seat -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	4/12/18	4 pcs	0 pcs 4x	4 pcs	\$7.05882353/pcs	\$28.24
3	171622	RBST2120-13	Secondary Seat -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	4/12/18	4 pcs	0 pcs 4x	4 pcs	\$7.05882353/pcs	\$28.24
4	174146	RBT18591-1	Base -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	4/12/18	4 pcs	0 pcs 4x	4 pcs	\$7.05882353/pcs	\$28.24
Grand Total:										\$120.00

Order Notes

cc'd AT 18/04/18



Certificat de Conformité / Certificate of Compliance

(008090-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

008090 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax:.

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
09-Apr-2018		Aman			PO039486			
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	RBSC7048-P-3 Rev.	RBSC7048-P-3 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	5	5	0	0	0
2	RBST2120-11 Rev.	RBST2120-11 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	4	4	0	0	0
3	RBST2120-13 Rev.	RBST2120-13 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	4	4	0	0	0
4	RBT18591-1 Rev.	RBT18591-1 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	4	4	0	0	0

DAS
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9-88

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.